

Incidence of Anemia and Its Predictors Among Children Enrolled to Anti-retroviral Therapy at Health Facilities in Wolaita Zone, South Ethiopia: A Retrospective Follow-up Study

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Abstract : Background: Anemia is a prominent hematological disorder in children infected with human immunodeficiency virus receiving antiretroviral therapy. Hence, this study aimed to put its contribution regarding the incidence and possible predictors of anemia among children on antiretroviral therapy. Objective: The aim is to determine the incidence of anemia and its predictors among children who were enrolled in anti-retroviral Therapy at health facilities in Wolaita zone, South Ethiopia, 2022. Methods: A facility-based retrospective follow-up study was conducted on 352 medical records, which were selected by using a stratified cluster sampling method. Data analysis was conducted by STATA version 14. Bi-variable and multivariable analysis was conducted by using the Cox proportional hazard regression model. Finally, predictors with p-values less than 0.05 were stated as statistically significant. Result: The overall incidence rate of anemia among children was 4.29 (95% CI: 3.46 - 5.34) per 100 person-years. Being female sex (AHR =1.79, 95% CI: 1.29 - 2.47), advanced disease stage (AHR=2.26, 95% CI: 1.26 - 4.06), zidovudine-based regimen (AHR=2.07, 95% CI: 1.16 - 3.69) and being stunted (AHR=3.37, 95% CI: 2.06 - 5.50) were predictors identified to increase the hazard of anemia. Conclusion: The overall incidence density of anemia in the study setting was found to be relatively low. Females, children at the advanced WHO clinical stage, those who were stunted, and those who initiated with Zidovudine-based regimen had an increased hazard of developing anemia. Recommendation: Special attention should be given to children who are at advanced disease stage, those children who are stunted, and those who are taking Zidovudine-based regimens.

Keywords : incidence, anemia, children, anti-retroviral therapy

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